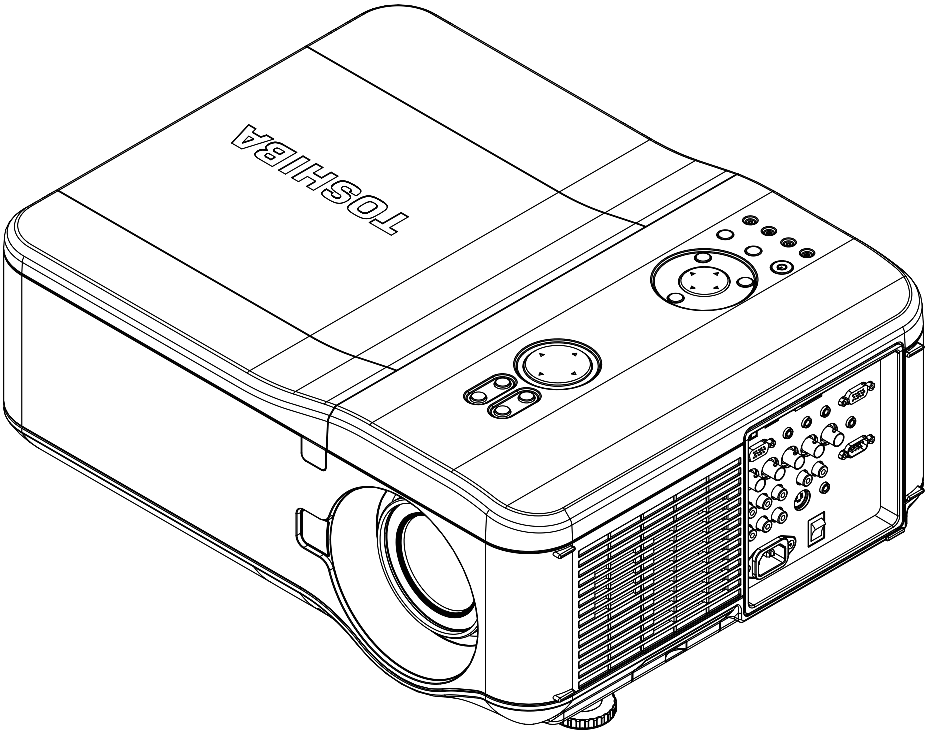
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Leading Innovation >>>

High Brightness WXGA Projector TDP-WX5400
Installation Guide - Ceiling and Desktop mount -



Contents

Product description

Type	1 Chip DLP projector 0.65DMD™	Dimensions	505 x 209 x 385mm
Resolution	1280 x 800(WXGA)	Weight	17kg
Powered	Lens Shift, Horizontal & Vertical / Zoom / Focus	Brigtness	5400 ANSI Lumens
Fan Noise	Std 39dB / Eco 34dB	Power Consumption	730W(Max)

Lens Specifications

TLPNL54

Throw Ratio : 1.78 - 2.35:1	Focal Length : 26.0 - 34.0mm
Screen Size : 40" ~ 500"	F / # : 1.7 - 1.9
Focus Adjust : Auto	Zoom Adjust : Auto

TLPML54

Throw Ratio : 2.22 - 4.43:1	Focal Length : 32 - 63mm
Screen Size : 40" ~ 500"	F / # : 2.1 - 2.9
Focus Adjust : Auto	Zoom Adjust : Auto

TLPSFL54

Throw Ratio : 0.77:1	Focal Length : 11.4mm
Screen Size : 50" ~ 200"	F / # : 2.0
Focus Adjust : Manual	Zoom Adjust : None

TLPLL54

Throw Ratio : 4.43 - 8.3:1	Focal Length : 63.5 - 117.4mm
Screen Size : 40" ~ 500"	F / # : 2.2 - 3.1
Focus Adjust : Auto	Zoom Adjust : Auto

TLPSL54

Throw Ratio : 1.33 - 1.79:1	Focal Length : 19.3 - 25.8mm
Screen Size : 40" ~ 500"	F / # : 1.8 - 2.3
Focus Adjust : Auto	Zoom Adjust : Auto

Notes

For screen sizes not indicated on the projection tables, use the formulas below.
If the figures on the tables do not match the results of formulas, use the figures in the table.

- All calculations are based on 16:10 aspect ratio.
- Distances are in inches, for millimeters multiply by 25.4.
- Distances may vary ±5%.

Definitions

A = Screen Size
W = Horizontal Screen Width(16:10)
H = Vertical Screen Width(16:10)
B = Vertical distance between lens center and screen center(16:10)
C = Throw distance(16:10)

Projection Formulas

[inches]

TLPNL54 :	W x 1.844 - 2.362 through W x 2.435 - 2.48
TLPSFL54 :	W x 0.817 - 1.535
TLPSL54 :	W x 1.379 - 1.969 through W x 1.854 - 1.811
TLPML54 :	W x 2.328 - 4.134 through W x 4.639 - 4.173
TLPLL 54:	W x 4.580 - 5.433 through W x 8.604 - 5.354

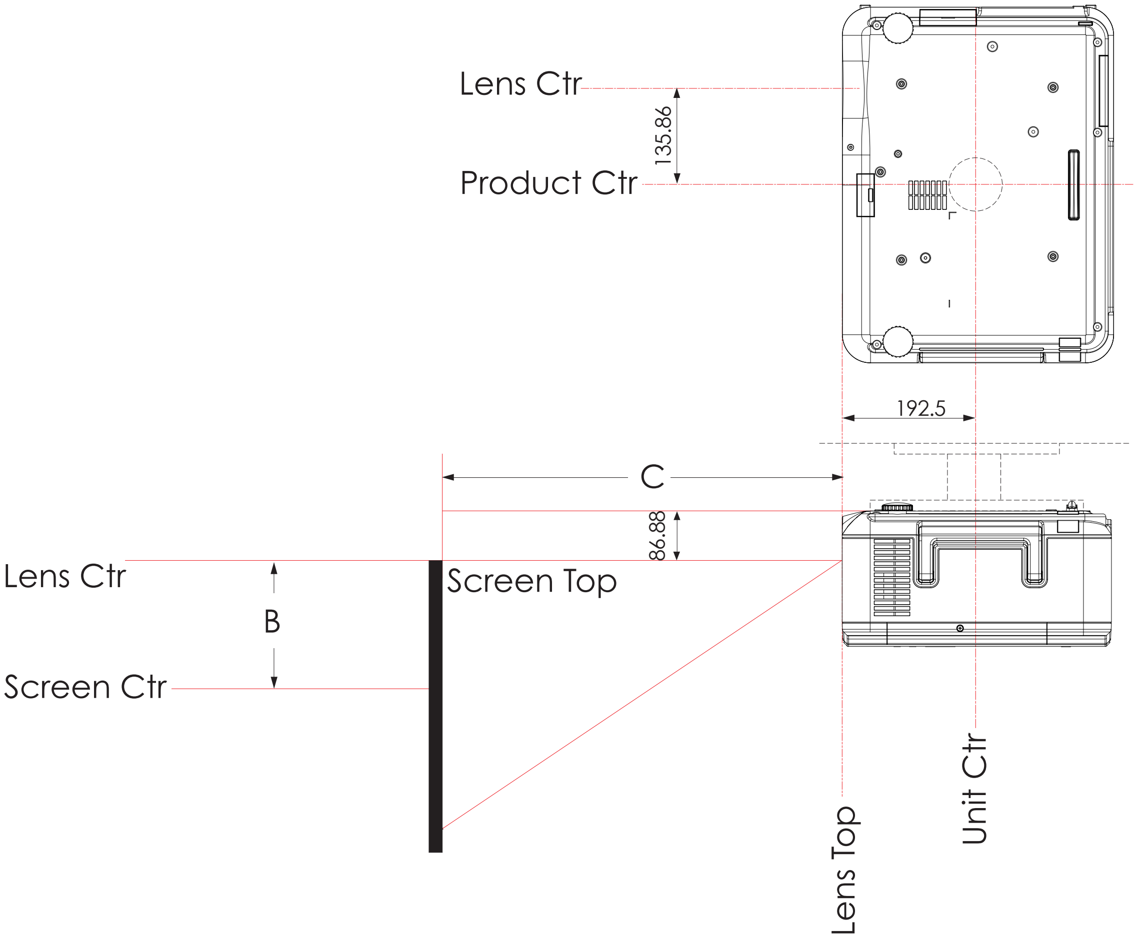
[meters]

TLPNL54 :	W x 1.844 - 0.060 through W x 2.435 - 0.063
TLPSFL54 :	W x 0.817 - 0.039
TLPSL54 :	W x 1.379 - 0.050 through W x 1.854 - 0.046
TLPML54 :	W x 2.328 - 0.105 through W x 4.639 - 0.106
TLPLL54 :	W x 4.580 - 0.138 through W x 8.604 - 0.136

"W" means the screen width.

Projection Distance and screen size for ceiling mount Used **TLPNL54** (1/2) Unit : mm

Ceiling Mount Installation

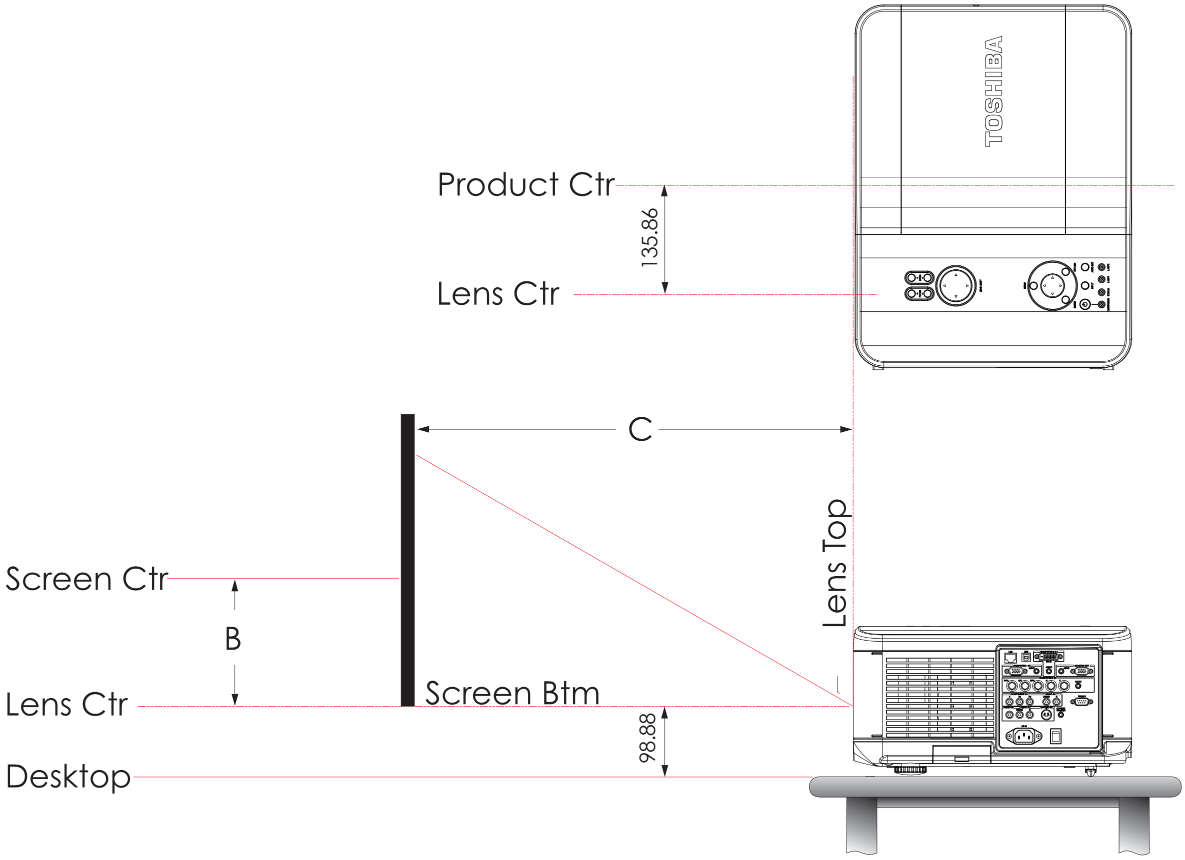


Distance Chart

Screen Size (16:10)			B	C
Diagonal	Width(H)	Height(V)		
inches	m(inch)	m(inch)	m(inch)	m(inch)
40	0.86(33.9)	0.54(21.3)	0.27(10.7)	1.53(60.2) - 2.02(79.5)
50	1.08(42.6)	0.67(26.4)	0.34(13.2)	1.92(75.6) - 2.53(99.6)
60	1.29(50.9)	0.81(31.9)	0.41(16.0)	2.30(90.6) - 3.04(119.7)
80	1.72(67.8)	1.08(42.6)	0.54(21.3)	3.07(120.9) - 4.05(159.4)
100	2.15(84.8)	1.35(53.2)	0.68(26.6)	3.83(150.8) - 5.06(199.2)
120	2.58(101.7)	1.62(63.9)	0.81(32.0)	4.60(181.1) - 6.07(239.0)
150	3.23(127.3)	2.02(79.6)	1.01(39.8)	5.75(226.4) - 7.59(298.8)
180	3.88(153.0)	2.42(95.4)	1.21(47.7)	6.90(271.7) - 9.11(358.7)
200	4.31(170.0)	2.69(106.0)	1.35(53.0)	7.67(302.0) - 10.12(398.4)
300	6.46(254.7)	4.04(159.4)	2.02(79.7)	11.50(452.8) - 15.19(598.0)
400	8.62(339.8)	5.38(212.2)	2.69(103.1)	15.34(603.9) - 20.25(797.2)
500	10.77(424.6)	6.73(265.5)	3.37(133.0)	19.17(754.7) - 25.31(996.5)

Projection Distance and screen size for desktop Used **TLPNL54** (2/2) Unit : mm

Desktop Setup

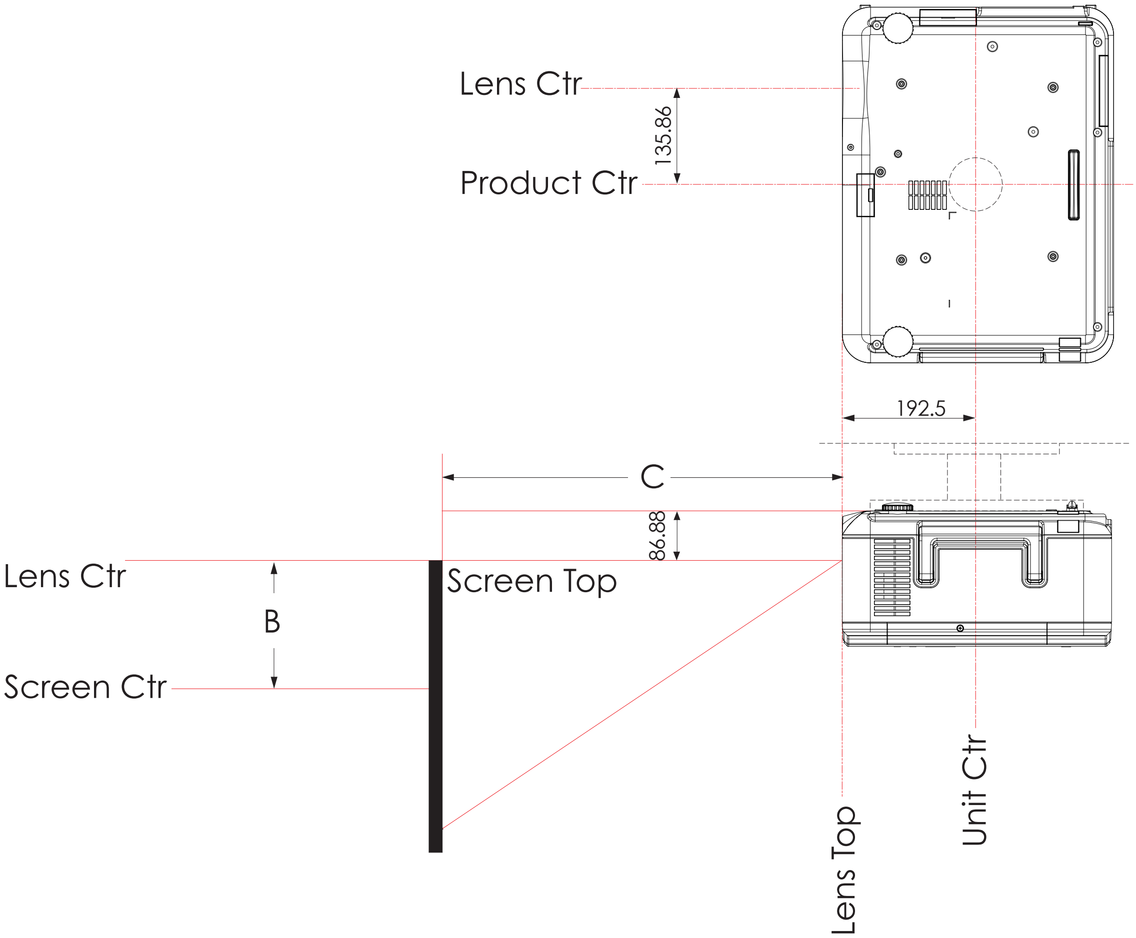


Distance Chart

Screen Size (16:10)			B	C
Diagonal	Width(H)	Height(V)		
inches	m(inch)	m(inch)	m(inch)	m(inch)
40	0.86(33.9)	0.54(21.3)	0.27(10.7)	1.53(60.2) - 2.02(79.5)
50	1.08(42.6)	0.67(26.4)	0.34(13.2)	1.92(75.6) - 2.53(99.6)
60	1.29(50.9)	0.81(31.9)	0.41(16.0)	2.30(90.6) - 3.04(119.7)
80	1.72(67.8)	1.08(42.6)	0.54(21.3)	3.07(120.9) - 4.05(159.4)
100	2.15(84.8)	1.35(53.2)	0.68(26.6)	3.83(150.8) - 5.06(199.2)
120	2.58(101.7)	1.62(63.9)	0.81(32.0)	4.60(181.1) - 6.07(239.0)
150	3.23(127.3)	2.02(79.6)	1.01(39.8)	5.75(226.4) - 7.59(298.8)
180	3.88(153.0)	2.42(95.4)	1.21(47.7)	6.90(271.7) - 9.11(358.7)
200	4.31(170.0)	2.69(106.0)	1.35(53.0)	7.67(302.0) - 10.12(398.4)
300	6.46(254.7)	4.04(159.4)	2.02(79.7)	11.50(452.8) - 15.19(598.0)
400	8.62(339.8)	5.38(212.2)	2.69(103.1)	15.34(603.9) - 20.25(797.2)
500	10.77(424.6)	6.73(265.5)	3.37(133.0)	19.17(754.7) - 25.31(996.5)

Projection Distance and screen size for ceiling mount Used **TLPSFL54** (1/2) Unit : mm

Ceiling Mount Installation

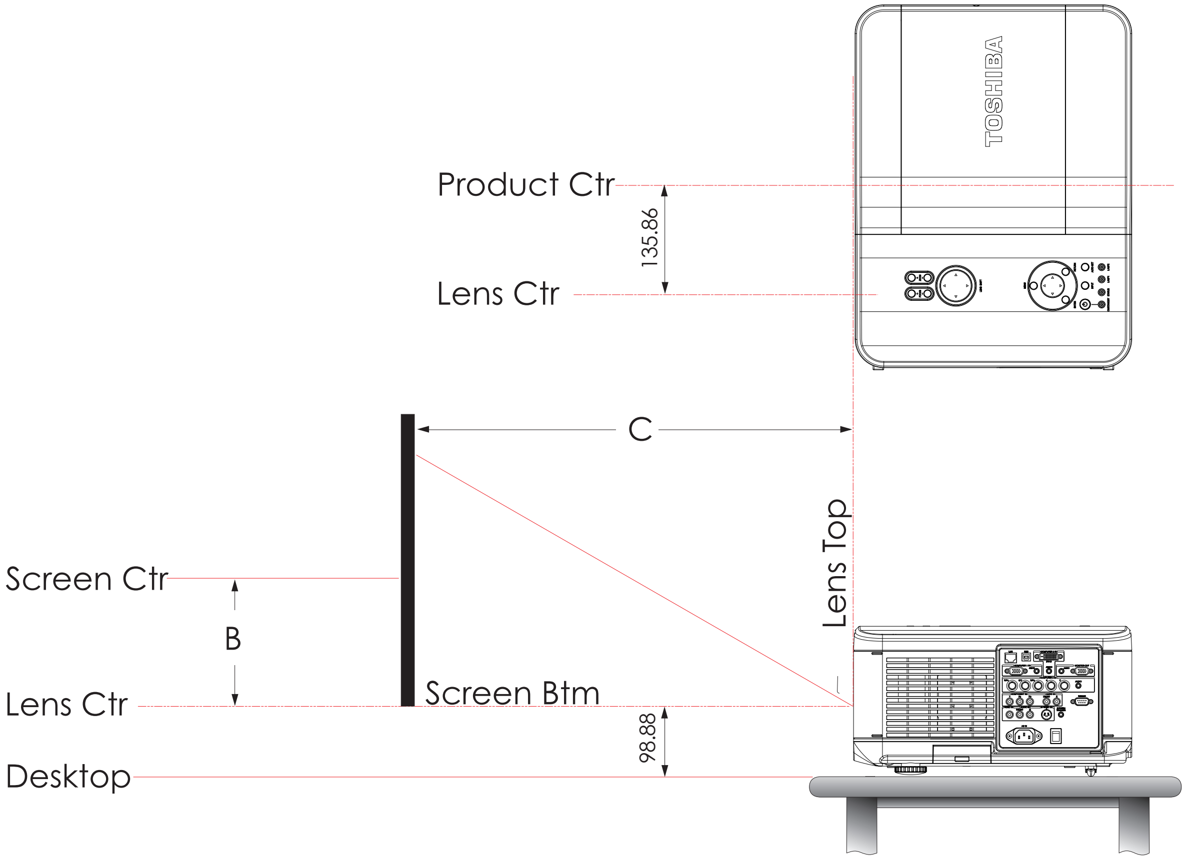


Distance Chart

Screen Size (16:10)			B	C
Diagonal	Width(H)	Height(V)		
inches	m(inch)	m(inch)	m(inch)	m(inch)
50	1.08(42.6)	0.67(26.4)	0.34(13.2)	0.83(32.7)
60	1.29(50.9)	0.81(31.9)	0.41(16.0)	1.00(39.4)
80	1.72(67.8)	1.08(42.6)	0.54(21.3)	1.33(52.4)
100	2.15(84.8)	1.35(53.2)	0.68(26.6)	1.67(65.7)
120	2.58(101.7)	1.62(63.9)	0.81(32.0)	2.00(78.7)
150	3.23(127.3)	2.02(79.6)	1.01(39.8)	2.50(98.4)
180	3.88(153.0)	2.42(95.4)	1.21(47.7)	3.00(118.1)
200	4.31(170.0)	2.69(106.0)	1.35(53.0)	3.33(131.1)

Projection Distance and screen size for desktop Used **TLPSFL54** (2/2) Unit : mm

Desktop Setup

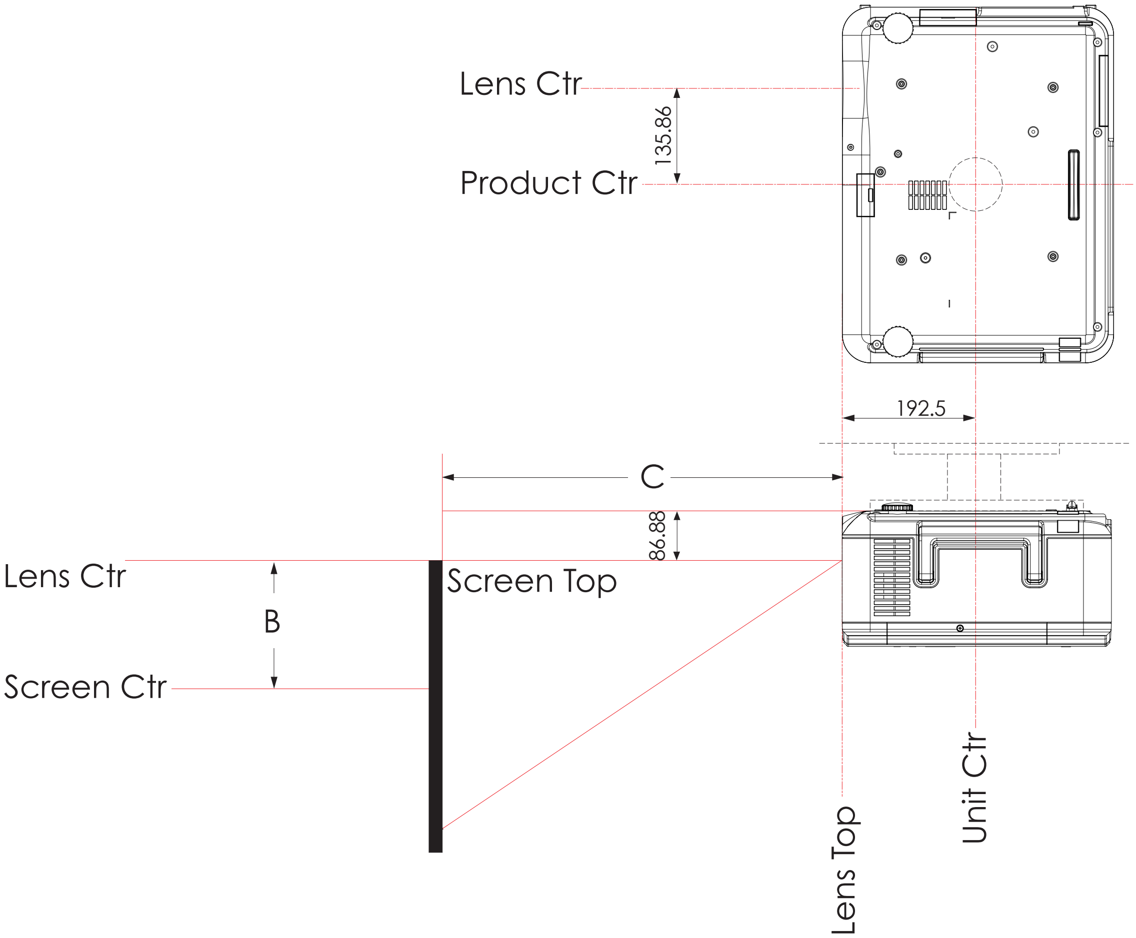


Distance Chart

Screen Size (16:10)			B	C
Diagonal	Width(H)	Height(V)		
inches	m(inch)	m(inch)	m(inch)	m(inch)
50	1.08(42.6)	0.67(26.4)	0.34(13.2)	0.83(32.7)
60	1.29(50.9)	0.81(31.9)	0.41(16.0)	1.00(39.4)
80	1.72(67.8)	1.08(42.6)	0.54(21.3)	1.33(52.4)
100	2.15(84.8)	1.35(53.2)	0.68(26.6)	1.67(65.7)
120	2.58(101.7)	1.62(63.9)	0.81(32.0)	2.00(78.7)
150	3.23(127.3)	2.02(79.6)	1.01(39.8)	2.50(98.4)
180	3.88(153.0)	2.42(95.4)	1.21(47.7)	3.00(118.1)
200	4.31(170.0)	2.69(106.0)	1.35(53.0)	3.33(131.1)

Projection Distance and screen size for ceiling mount Used **TLPSL54** (1/2) Unit : mm

Ceiling Mount Installation

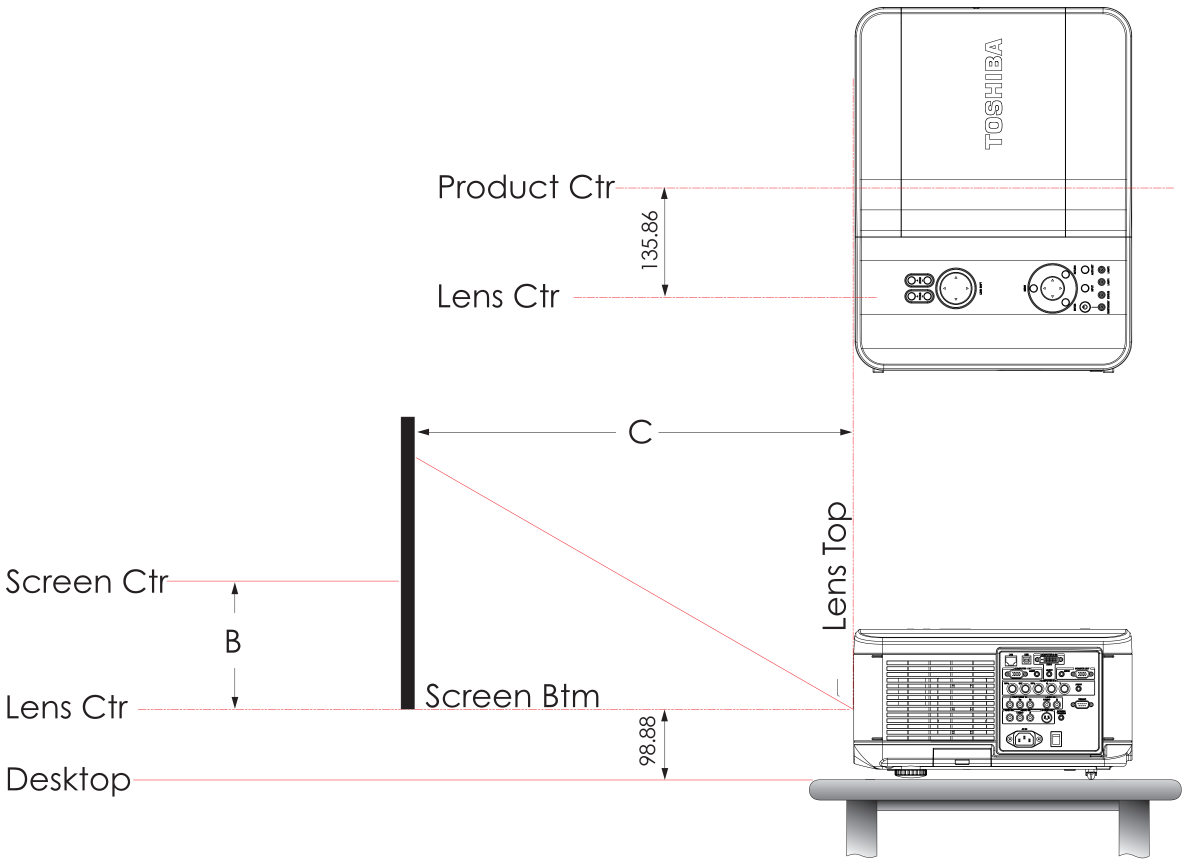


Distance Chart

Screen Size (16:10)			B	C
Diagonal	Width(H)	Height(V)		
inches	m(inch)	m(inch)	m(inch)	m(inch)
40	0.86(33.9)	0.54(21.3)	0.27(10.7)	1.15(45.3) - 1.54(60.6)
50	1.08(42.6)	0.67(26.4)	0.34(13.2)	1.43(56.3) - 1.93(76.0)
60	1.29(50.9)	0.81(31.9)	0.41(16.0)	1.72(57.7) - 2.31(90.9)
80	1.72(67.8)	1.08(42.6)	0.54(21.3)	2.29(90.2) - 3.08(121.3)
100	2.15(84.8)	1.35(53.2)	0.68(26.6)	2.86(112.6) - 3.86(152.0)
120	2.58(101.7)	1.62(63.9)	0.81(32.0)	3.44(135.4) - 4.63(182.3)
150	3.23(127.3)	2.02(79.6)	1.01(39.8)	4.30(169.3) - 5.78(227.6)
180	3.88(153.0)	2.42(95.4)	1.21(47.7)	5.16(203.1) - 6.94(273.2)
200	4.31(170.0)	2.69(106.0)	1.35(53.0)	5.73(225.6) - 7.71(303.5)
300	6.46(254.7)	4.04(159.4)	2.02(79.7)	8.59(338.2) - 11.57(455.5)
400	8.62(339.8)	5.38(212.2)	2.69(103.1)	11.46(451.2) - 15.42(607.1)
500	10.77(424.6)	6.73(265.5)	3.37(133.0)	14.32(563.8) - 19.28(759.1)

Projection Distance and screen size for desktop Used **TLPSL54** (2/2) Unit : mm

Desktop Setup

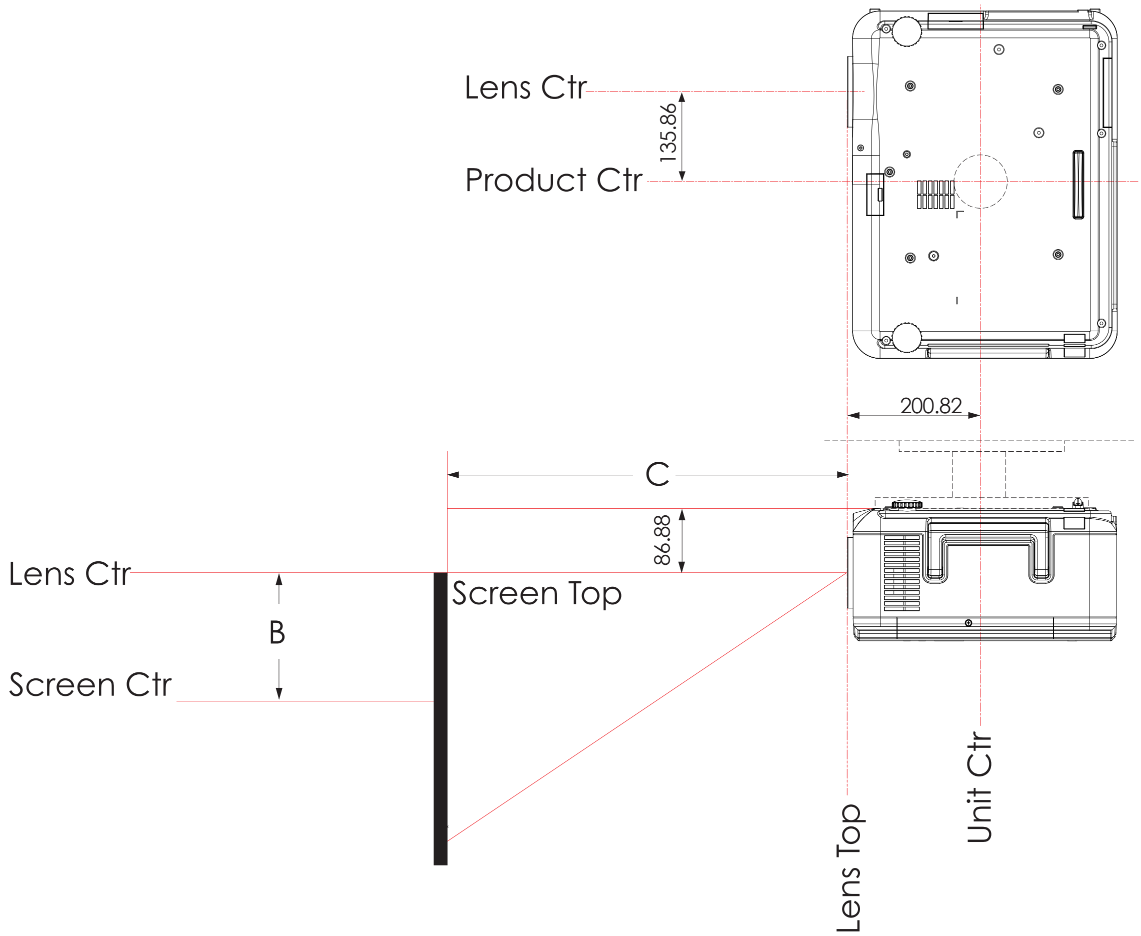


Distance Chart

Screen Size (16:10)			B	C
Diagonal	Width(H)	Height(V)		
inches	m(inch)	m(inch)	m(inch)	m(inch)
40	0.86(33.9)	0.54(21.3)	0.27(10.7)	1.15(45.3) - 1.54(60.6)
50	1.08(42.6)	0.67(26.4)	0.34(13.2)	1.43(56.3) - 1.93(76.0)
60	1.29(50.9)	0.81(31.9)	0.41(16.0)	1.72(57.7) - 2.31(90.9)
80	1.72(67.8)	1.08(42.6)	0.54(21.3)	2.29(90.2) - 3.08(121.3)
100	2.15(84.8)	1.35(53.2)	0.68(26.6)	2.86(112.6) - 3.86(152.0)
120	2.58(101.7)	1.62(63.9)	0.81(32.0)	3.44(135.4) - 4.63(182.3)
150	3.23(127.3)	2.02(79.6)	1.01(39.8)	4.30(169.3) - 5.78(227.6)
180	3.88(153.0)	2.42(95.4)	1.21(47.7)	5.16(203.1) - 6.94(273.2)
200	4.31(170.0)	2.69(106.0)	1.35(53.0)	5.73(225.6) - 7.71(303.5)
300	6.46(254.7)	4.04(159.4)	2.02(79.7)	8.59(338.2) - 11.57(455.5)
400	8.62(339.8)	5.38(212.2)	2.69(103.1)	11.46(451.2) - 15.42(607.1)
500	10.77(424.6)	6.73(265.5)	3.37(133.0)	14.32(563.8) - 19.28(759.1)

Projection Distance and screen size for ceiling mount Used **TLPML54** (1/2) Unit : mm

Ceiling Mount Installation

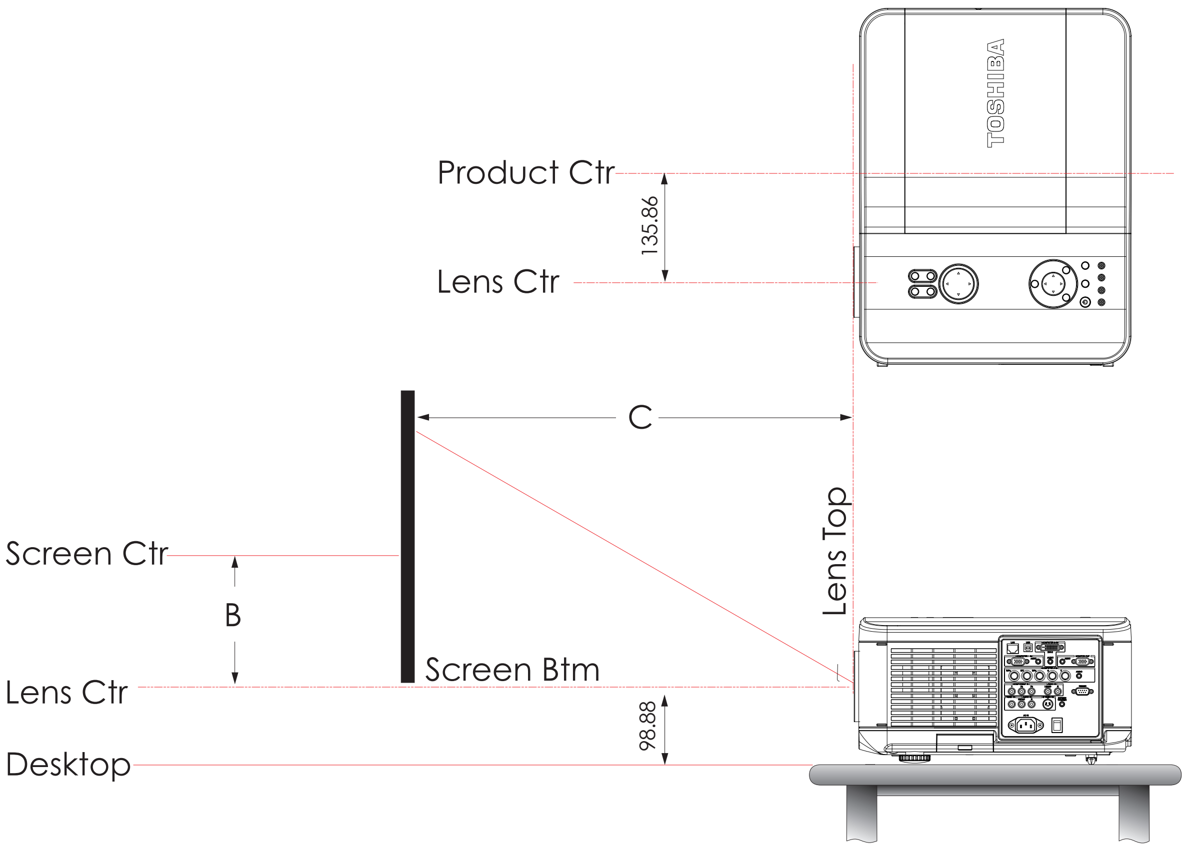


Distance Chart

Screen Size (16:10)			B	C
Diagonal	Width(H)	Height(V)		
inches	m(inch)	m(inch)	m(inch)	m(inch)
40	0.86(33.9)	0.54(21.3)	0.27(10.7)	1.91(75.2) - 3.82(150.4)
50	1.08(42.6)	0.67(26.4)	0.34(13.2)	2.39(94.1) - 4.77(187.8)
60	1.29(50.9)	0.81(31.9)	0.41(16.0)	2.87(113.0) - 5.73(225.6)
80	1.72(67.8)	1.08(42.6)	0.54(21.3)	3.83(150.8) - 7.63(300.4)
100	2.15(84.8)	1.35(53.2)	0.68(26.6)	4.78(188.2) - 9.54(375.6)
120	2.58(101.7)	1.62(63.9)	0.81(32.0)	5.74(226.0) - 11.45(450.8)
150	3.23(127.3)	2.02(79.6)	1.01(39.8)	7.17(282.3) - 14.31(563.4)
180	3.88(153.0)	2.42(95.4)	1.21(47.7)	8.61(339.0) - 17.18(676.4)
200	4.31(170.0)	2.69(106.0)	1.35(53.0)	9.56(376.4) - 19.08(751.2)
300	6.46(254.7)	4.04(159.4)	2.02(79.7)	14.35(565.0) - 28.63(1127.2)
400	8.62(339.8)	5.38(212.2)	2.69(103.1)	19.13(753.1) - 38.17(1502.8)
500	10.77(424.6)	6.73(265.5)	3.37(133.0)	23.91(941.3) - 47.71(1878.3)

Projection Distance and screen size for desktop Used **TLPML54** (2/2) Unit : mm

Desktop Setup

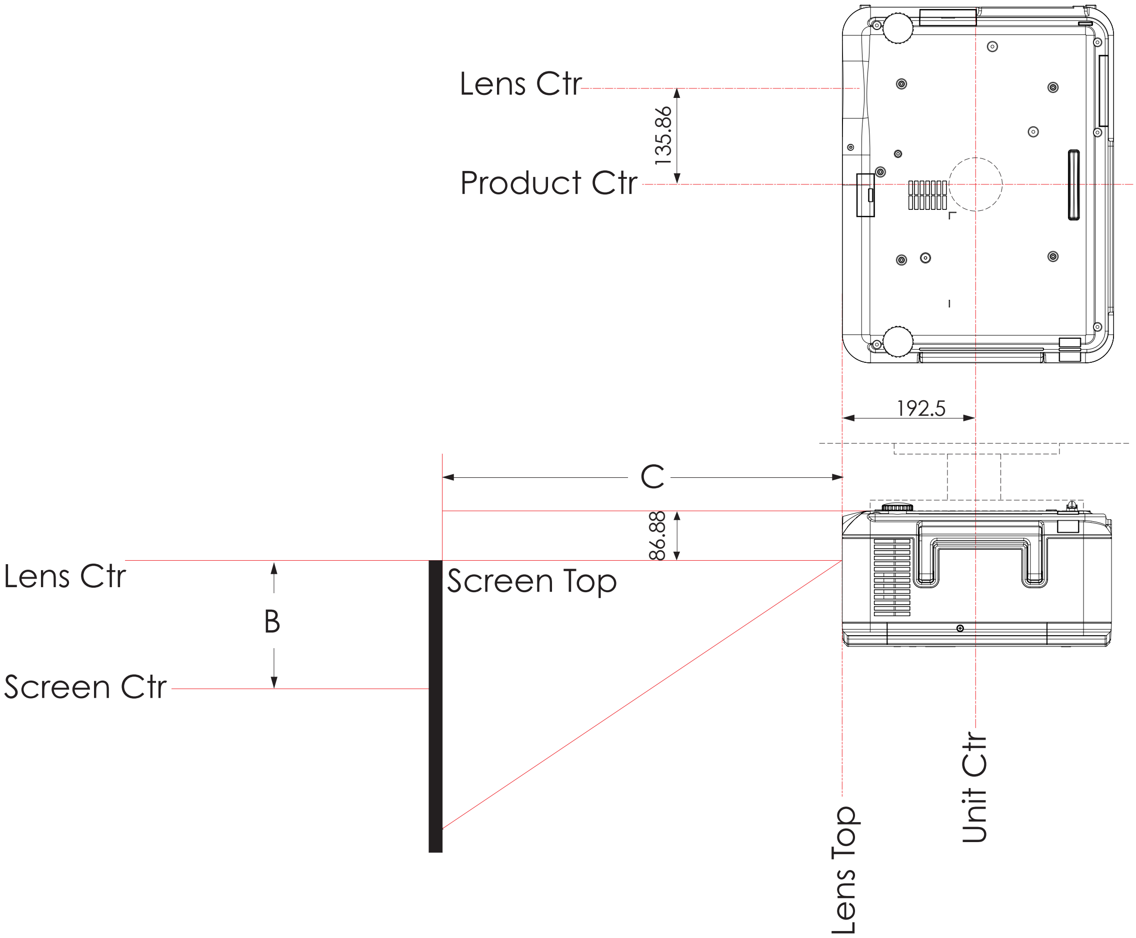


Distance Chart

Screen Size (16:10)			B	C
Diagonal	Width(H)	Height(V)		
inches	m(inch)	m(inch)	m(inch)	m(inch)
40	0.86(33.9)	0.54(21.3)	0.27(10.7)	1.91(75.2) - 3.82(150.4)
50	1.08(42.6)	0.67(26.4)	0.34(13.2)	2.39(94.1) - 4.77(187.8)
60	1.29(50.9)	0.81(31.9)	0.41(16.0)	2.87(113.0) - 5.73(225.6)
80	1.72(67.8)	1.08(42.6)	0.54(21.3)	3.83(150.8) - 7.63(300.4)
100	2.15(84.8)	1.35(53.2)	0.68(26.6)	4.78(188.2) - 9.54(375.6)
120	2.58(101.7)	1.62(63.9)	0.81(32.0)	5.74(226.0) - 11.45(450.8)
150	3.23(127.3)	2.02(79.6)	1.01(39.8)	7.17(282.3) - 14.31(563.4)
180	3.88(153.0)	2.42(95.4)	1.21(47.7)	8.61(339.0) - 17.18(676.4)
200	4.31(170.0)	2.69(106.0)	1.35(53.0)	9.56(376.4) - 19.08(751.2)
300	6.46(254.7)	4.04(159.4)	2.02(79.7)	14.35(565.0) - 28.63(1127.2)
400	8.62(339.8)	5.38(212.2)	2.69(103.1)	19.13(753.1) - 38.17(1502.8)
500	10.77(424.6)	6.73(265.5)	3.37(133.0)	23.91(941.3) - 47.71(1878.3)

Projection Distance and screen size for ceiling mount Used **TLPLL54** (1/2) Unit : mm

Ceiling Mount Installation

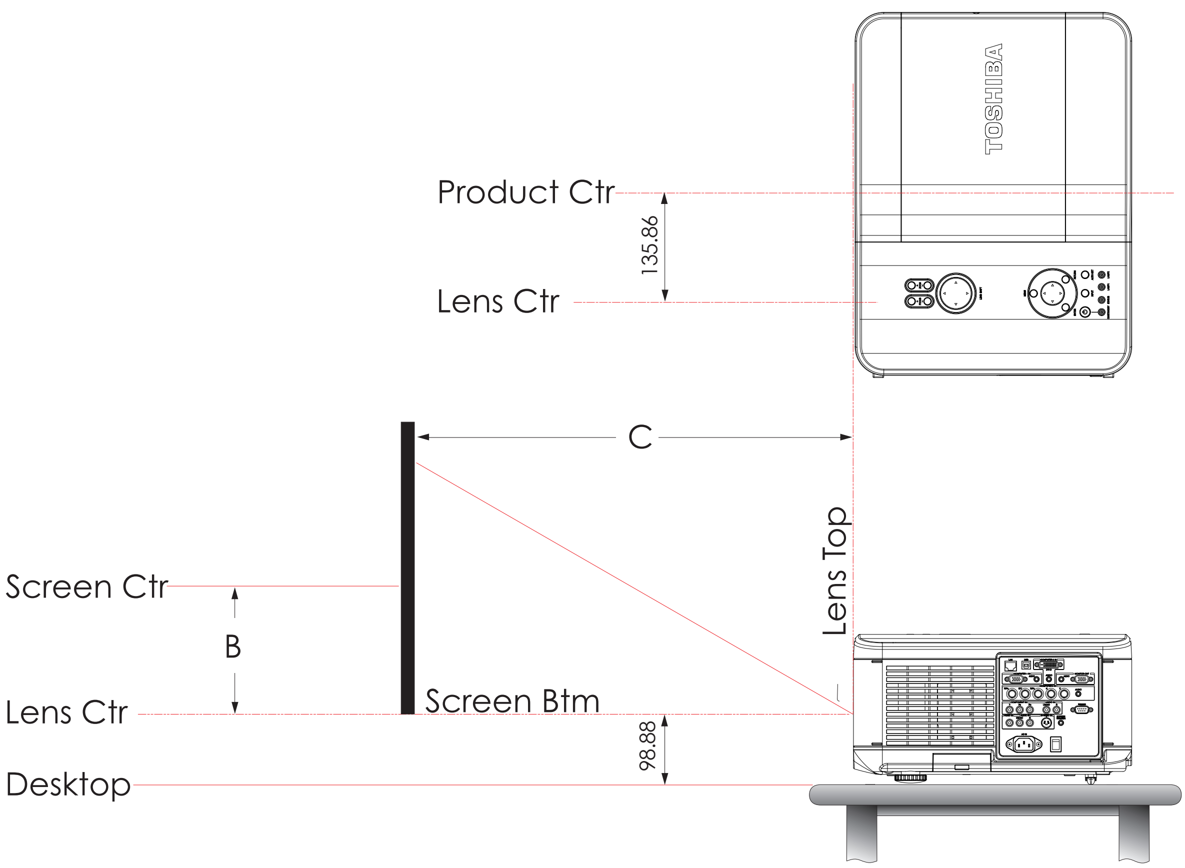


Distance Chart

Screen Size (16:10)			B	C
Diagonal	Width(H)	Height(V)		
inches	m(inch)	m(inch)	m(inch)	m(inch)
40	0.86(33.9)	0.54(21.3)	0.27(10.7)	3.82(150.4) - 7.15(281.5)
50	1.08(42.6)	0.67(26.4)	0.34(13.2)	4.77(187.8) - 8.94(352.0)
60	1.29(50.9)	0.81(31.9)	0.41(16.0)	5.73(225.6) - 10.73(422.4)
80	1.72(67.8)	1.08(42.6)	0.54(21.3)	7.63(300.4) - 14.30(563.0)
100	2.15(84.8)	1.35(53.2)	0.68(26.6)	9.54(375.6) - 17.88(703.9)
120	2.58(101.7)	1.62(63.9)	0.81(32.0)	11.45(450.8) - 21.45(844.5)
150	3.23(127.3)	2.02(79.6)	1.01(39.8)	14.31(563.4) - 26.82(1055.9)
180	3.88(153.0)	2.42(95.4)	1.21(47.7)	17.18(676.4) - 32.18(1266.9)
200	4.31(170.0)	2.69(106.0)	1.35(53.0)	19.08(751.2) - 35.76(1407.9)
300	6.46(254.7)	4.04(159.4)	2.02(79.7)	28.63(1127.2) - 53.63(2111.4)
400	8.62(339.8)	5.38(212.2)	2.69(103.1)	38.17(1502.8) - 71.51(2815.4)
500	10.77(424.6)	6.73(265.5)	3.37(133.0)	47.71(1878.3) - 89.39(3519.3)

Projection Distance and screen size for desktop Used **TLPLL54** (2/2) Unit : mm

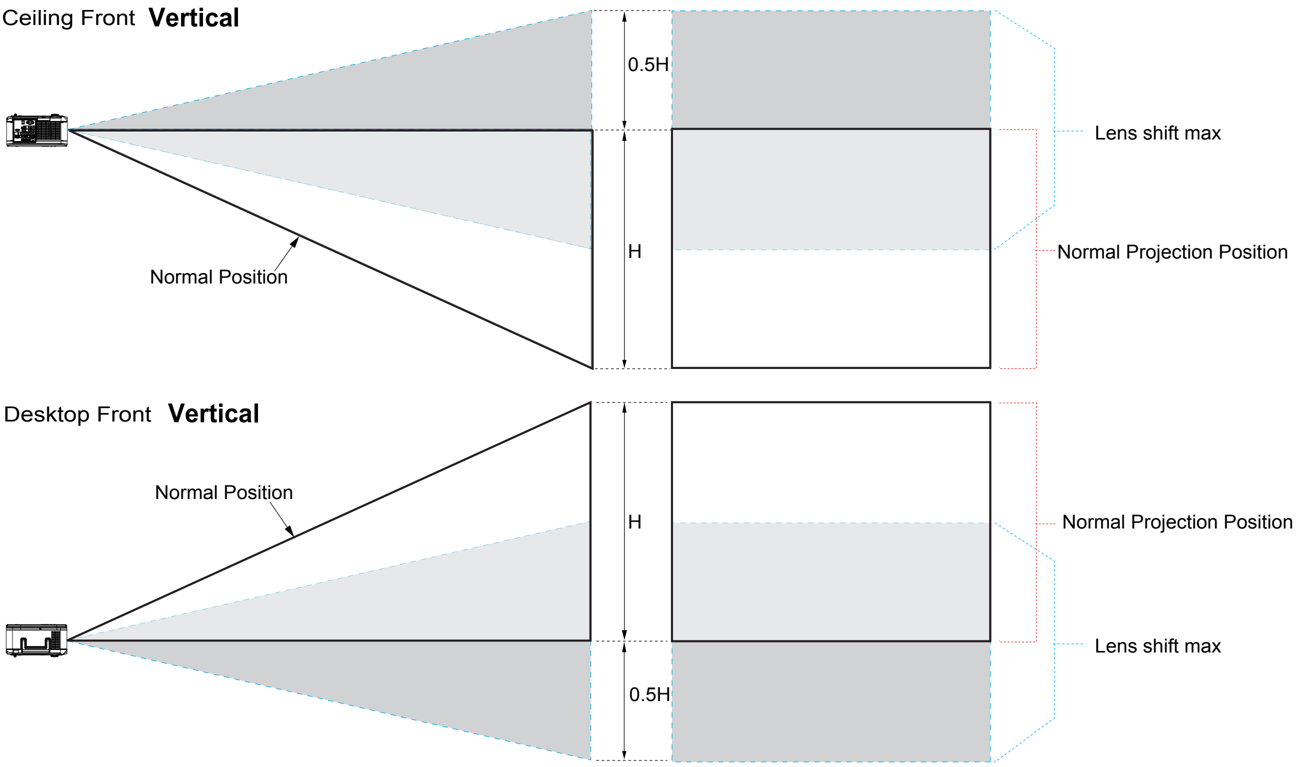
Desktop Setup



Distance Chart

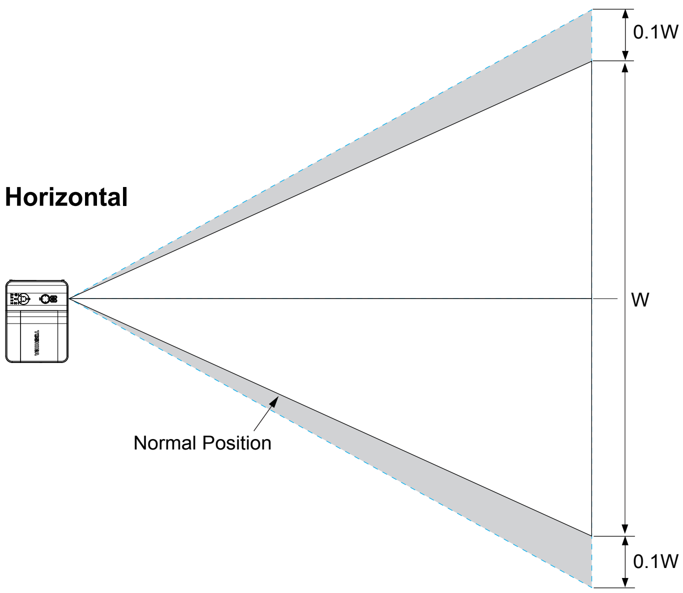
Screen Size (16:10)			B	C
Diagonal	Width(H)	Height(V)		
inches	m(inch)	m(inch)	m(inch)	m(inch)
40	0.86(33.9)	0.54(21.3)	0.27(10.7)	3.82(150.4) - 7.15(281.5)
50	1.08(42.6)	0.67(26.4)	0.34(13.2)	4.77(187.8) - 8.94(352.0)
60	1.29(50.9)	0.81(31.9)	0.41(16.0)	5.73(225.6) - 10.73(422.4)
80	1.72(67.8)	1.08(42.6)	0.54(21.3)	7.63(300.4) - 14.30(563.0)
100	2.15(84.8)	1.35(53.2)	0.68(26.6)	9.54(375.6) - 17.88(703.9)
120	2.58(101.7)	1.62(63.9)	0.81(32.0)	11.45(450.8) - 21.45(844.5)
150	3.23(127.3)	2.02(79.6)	1.01(39.8)	14.31(563.4) - 26.82(1055.9)
180	3.88(153.0)	2.42(95.4)	1.21(47.7)	17.18(676.4) - 32.18(1266.9)
200	4.31(170.0)	2.69(106.0)	1.35(53.0)	19.08(751.2) - 35.76(1407.9)
300	6.46(254.7)	4.04(159.4)	2.02(79.7)	28.63(1127.2) - 53.63(2111.4)
400	8.62(339.8)	5.38(212.2)	2.69(103.1)	38.17(1502.8) - 71.51(2815.4)
500	10.77(424.6)	6.73(265.5)	3.37(133.0)	47.71(1878.3) - 89.39(3519.3)

Lens Shift Adjustable Range



"H" means the screen height.
Shift(%) = 100% + ((offset value H cm)/(1/2 height of screen cm) x 100)

Horizontal



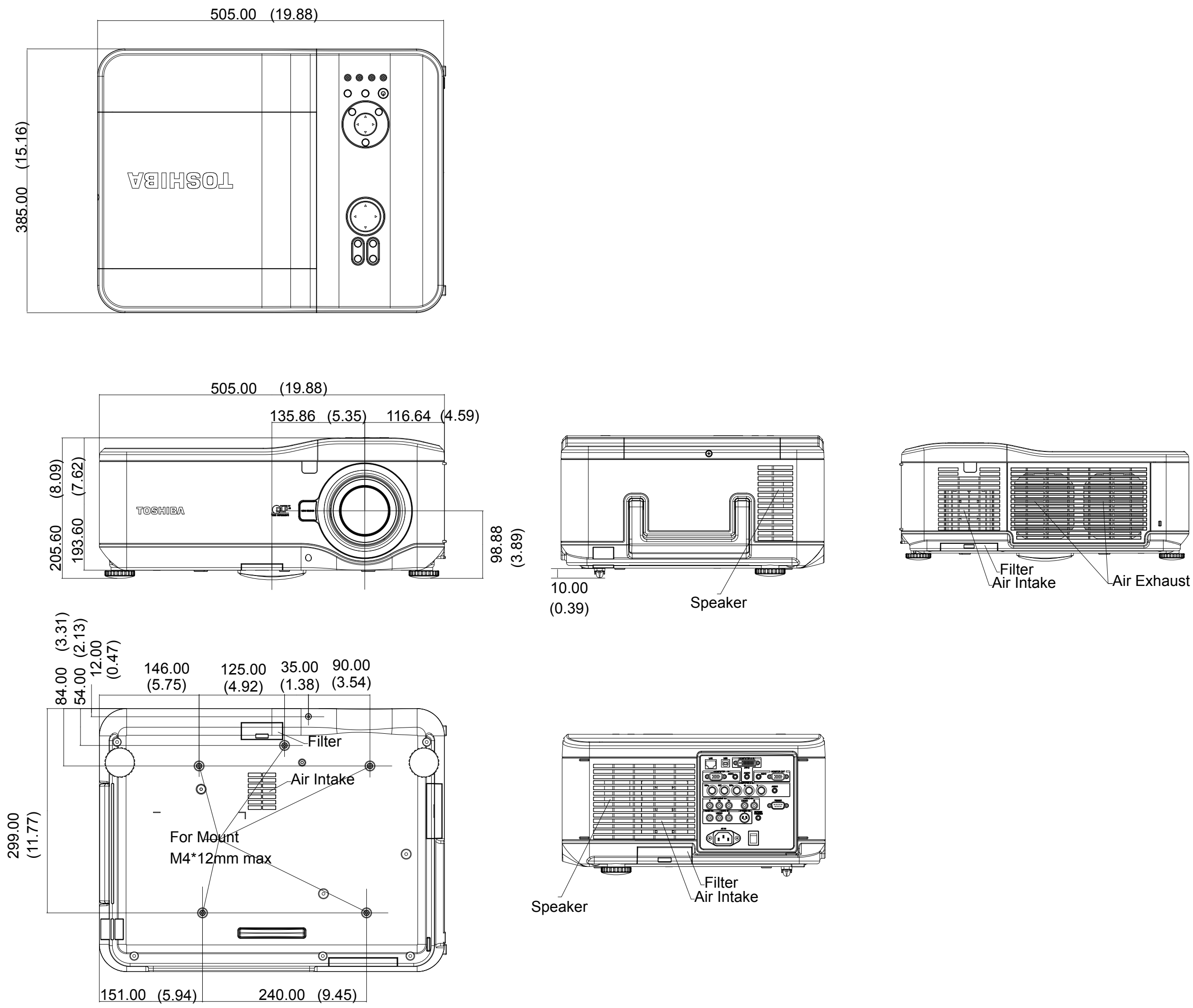
"W" means the screen width.

Lens Shift Range for Desktop and Ceiling Mount Application
The diagram below shows the location of the image position in the lens. The lens can be shifted within the blue line area as shown using the normal projection position as a starting point.

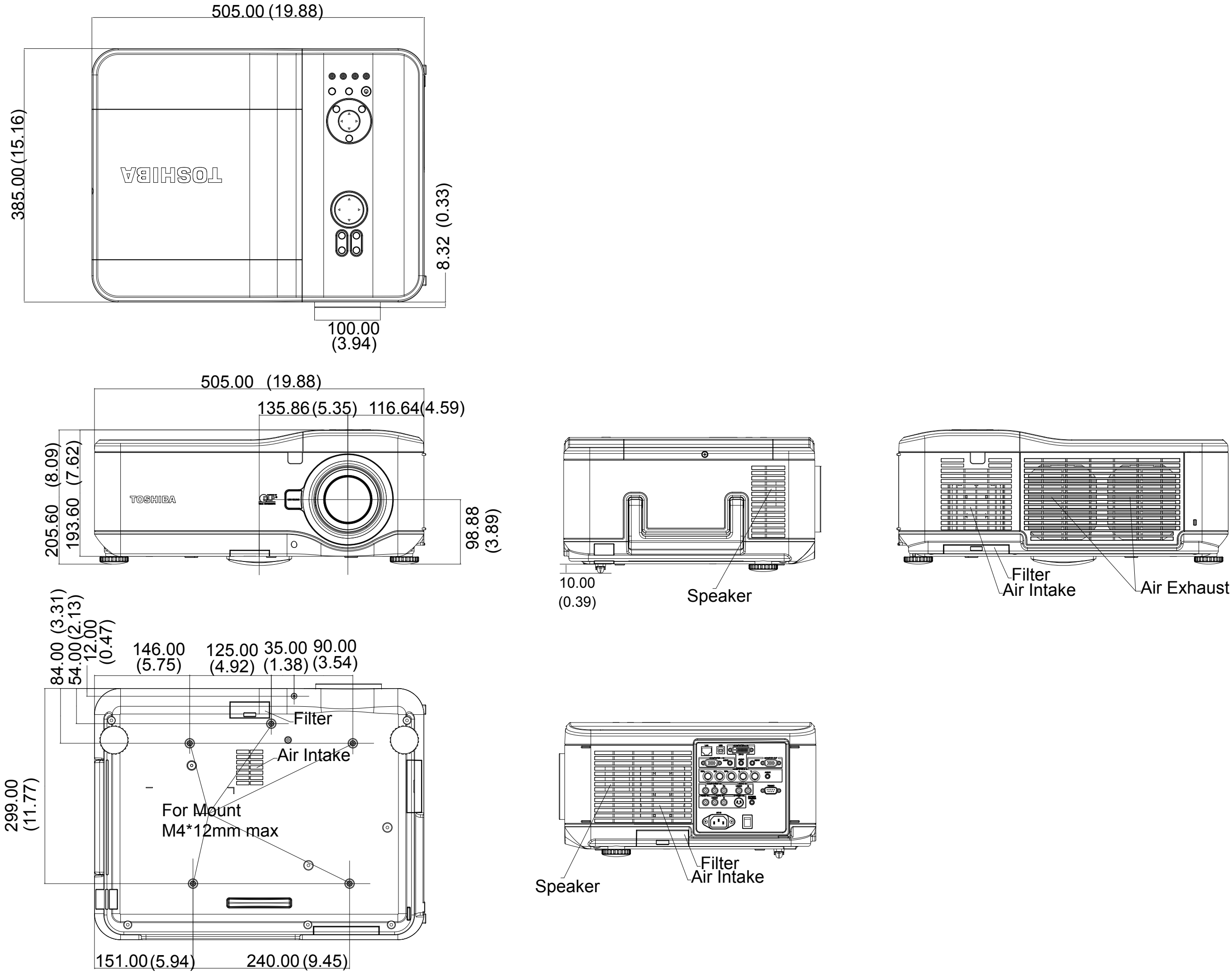
Note: Lens shift feature is not available with TLPSFL54 . TLPSFL54 should be used only for “zero degree” / “no-offset” applications.

Maximum Possible Range for Standard Lens / TLPSL54 / TLPNL54 / TLPML54 / TLPLL54:
Up: 0.5H
Right: 0.10W
Left: 0.10W
(W: width of projected image, H: height of projected image)

Cabinet Dimensions used TLPNL54, TLPSFL54, TLPSL54. TLPLL54 Unit : mm (inch)



Cabinet Dimensions used TLPML54 Unit : mm (inch)



Command List

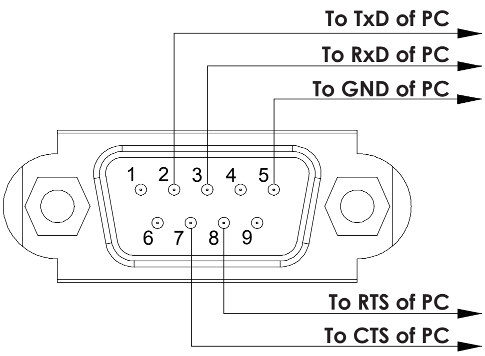
Function	Command Name	Command	Response
		User Command	
Turn On (in STANDBY state)	PON	'#' 'P' 'O' 'N' CR	'=' 'P' 'O' 'N' ':' 'S' 'C' ID CR
Shutdown	PSD	'#' 'P' 'S' 'D' CR	'=' 'P' 'S' 'D' ':' 'S' 'C' ID CR
Mute On = 1	MON	'#' 'M' 'U' 'T' ':' '1' CR	'=' 'M' 'U' 'T' ':' '1' CR
Mute Off = 0	MOF	'#' 'M' 'U' 'T' ':' '0' CR	'=' 'M' 'U' 'T' ':' '0' CR
Freeze On = 1	FON	'#' 'F' 'R' 'Z' ':' '1' CR	'=' 'F' 'R' 'Z' ':' '1' CR
Freeze Off = 0	FOF	'#' 'F' 'R' 'Z' ':' '0' CR	'=' 'F' 'R' 'Z' ':' '0' CR
Input Source RGB 1Digital = 1	IN1	'#' 'I' 'N' 'P' ':' '1' CR	'=' 'I' 'N' 'P' ':' '1' CR
Input Source YPBbPr 1 Digital = 2	IN2	'#' 'I' 'N' 'P' ':' '2' CR	'=' 'I' 'N' 'P' ':' '2' CR
Input Source RGB 1 = 3	IN3	'#' 'I' 'N' 'P' ':' '3' CR	'=' 'I' 'N' 'P' ':' '3' CR
Input Source YPBbPr 1 = 4	IN4	'#' 'I' 'N' 'P' ':' '4' CR	'=' 'I' 'N' 'P' ':' '4' CR
Input Source RGB 2 = 5	IN5	'#' 'I' 'N' 'P' ':' '5' CR	'=' 'I' 'N' 'P' ':' '5' CR
Input Source YPbPr 2 = 6	IN6	'#' 'I' 'N' 'P' ':' '6' CR	'=' 'I' 'N' 'P' ':' '6' CR
Input Source Video = 9	IN9	'#' 'I' 'N' 'P' ':' '9' CR	'=' 'I' 'N' 'P' ':' '9' CR
Input Source S-Video = 10	INA	'#' 'I' 'N' 'P' ':' '1' '0' CR	'=' 'I' 'N' 'P' ':' '1' '0' CR
Projector Power State	SPS	'#' 'S' 'P' 'S' CR	'=' 'S' 'P' 'S' ':' PARAM : 0 to 7 CR
Input Source Information	SIS	'#' 'S' 'I' 'S' CR	'=' 'S' 'I' 'S' ':' PARAM : 0 to 255 CR
User Lamp Time	SLT	'#' 'S' 'L' 'T' CR	'=' 'S' 'L' 'T' ':' *Note U1 CR
Total Time	STT	'#' 'S' 'T' 'T' CR	'=' 'S' 'T' 'T' ':' *Note U1 CR

Note : 9600bps / No Parity / Data Length 8-Bit / Stop Bit Length 1-Bit — '=' 'E' 'R' ID CR or No Return Data
Note : Invalid Command Response — '=' Command ':' 'E' 'R' ID CR
Note : Execution Failure Response — '=' Command ':' Hours : 0 to 65535 'H' Min. : 0 to 60 'M' Sec. : 0 to 60 'S' CR
Note U1 : Timer Parameter Response

Cable Connection

Communication Protocol:

Baud Rate: 38400 bps (for cable lengths longer than 20', it is recommended changing to 9600 bps in setup menu)
Data Length: 8 bits
Parity: No Parity
Stop Bit: One bit
X on/off: None
Communications: Full duplex
Note U1 : Timer Parameter Response



PC Control Connector (D-Sub 9P)

Note:

Pins 1, 4, 6, and 9 are used inside the projector.
Jumper "Request to send" and "Clear to Send" together on both ends of the cable to simplify cable connection.